

Attorney Docket No. BCI-024CP
U.S.S.N. 09/885,297
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1-43. (Cancelled)

44. (Amended) A recombinant host cell suitable for degrading an oligosaccharide comprising:

a first heterologous polynucleotide segment encoding a first endoglucanase having a first degrading activity, wherein said segment is under the transcriptional control of a surrogate promoter; and

a second heterologous polynucleotide segment encoding a second endoglucanase having a second degrading activity, wherein said segment is under the transcriptional control of a surrogate promoter, and

an additional enzyme.

wherein said first endoglucanase and said second endoglucanase are expressed so that said first and said second degrading activities are present in a ratio such that the degrading of said oligosaccharide by said first and second endoglucanases is synergized and wherein said first endoglucanase is encoded by *celZ* and said second endoglucanase is encoded by *celY*, and wherein *celZ* and *celY* are derived from *Erwinia*.

45. (Original) The recombinant host cell of claim 44, wherein said first endoglucanase or said second endoglucanase, or both said first and said second endoglucanases are secreted.

46. (Original) The recombinant host cell of claim 44, wherein said host cell is a bacterial cell.

47. (Original) The recombinant host cell of claim 46, wherein said host cell is selected from the family Enterobacteriaceae.

48. (Original) The recombinant host cell of claim 47, wherein said host is *Escherichia* or *Klebsiella*.

49. (Original) The recombinant host cell of claim 48, wherein said host cell is selected from the group consisting of *E. coli* B, *E. coli* DH5 α , and *Klebsiella oxytoca*.

50. (Cancelled)

51. (Amended) The recombinant host cell of claim [48] 44, wherein said additional enzyme is selected from the group consisting of glucanase, endoglucanase, exoglucanase, cellobiohydrolase, β -glucosidase, endo-1,4- β -xylanase, α -xylosidase, α -glucuronidase, α -L-

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arabinofuranosidase, acetylsterase, acetylxylnesterase, α -amylase, β -amylase, glucoamylase, pullulanase, β -glucanase, hemicellulase, arabinosidase, mannanase, pectin hydrolase, pectate lyase, or a combination thereof.

52. (Amended) The recombinant host cell of claim [50] 44, wherein said additional enzyme is an ethanologenic enzyme.

53. (Amended) The recombinant host cell of claim [50] 44, wherein said additional enzyme is an ethanologenic enzyme selected from the group consisting of pyruvate decarboxylase and alcohol dehydrogenase.

54. (Cancelled)

55. (Original) The recombinant host cell of claim 44, wherein said first endoglucanase is EGZ and said second endoglucanase is EGY.

56. (Amended) The recombinant host cell of claim [50] 44, wherein said additional enzyme is a secretory enzyme.

57. (Original) The recombinant host cell of claim 56, wherein said secretory enzyme is a *pul* or *ow* gene product.

58. (Original) The recombinant host cell of claim 44, wherein said host cell is ethanologenic.

59. (Amended) The recombinant host cell of claim [58] 44, wherein said host cell is selected from the group comprising *E. coli* KO4 (ATCC 55123), *E. coli* KO11 (ATCC 55124), *E. coli* KO12 (ATCC 55125) and *E. coli* LY01 (ATCC 11303), and *K. oxytoca* P2 (ATCC 55307).

60-96. (Cancelled)

97. (Amended) A recombinant host cell suitable for degrading an oligosaccharide comprising:

a first heterologous polynucleotide segment encoding a first endoglucanase; and
a second heterologous polynucleotide segment encoding a second endoglucanase
wherein said cell is a bacterial cell and wherein said first endoglucanase is encoded by *celZ* and a second endoglucanase is encoded by *celY*, and wherein *celZ* and *celY* are derived from *Erwinia*.

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98. (Amended) A recombinant host cell suitable for reducing the viscosity of an oligosaccharide comprising:
a first heterologous polynucleotide segment encoding a first endoglucanase; and
a second heterologous polynucleotide segment encoding a second endoglucanase
wherein said cell is a bacterial cell, and wherein said first endoglucanase is encoded by *celZ* and a second endoglucanase is encoded by *celY*, and wherein *celZ* and *celY* are derived from *Erwinia*.
99. (Original) The recombinant host cell of claim 97 or 98, wherein said first heterologous polynucleotide segment is under the transcriptional control of a surrogate promoter, and said second heterologous polynucleotide segment is under the transcriptional control of a surrogate promoter.
100. (Cancelled)
101. (Amended) The recombinant host cell of claim ~~100~~ 97 or 98, wherein said bacterial cell is selected from the family Enterobacteriaceae.
102. (Original) The recombinant host cell of claim 101, wherein said bacterial cell is *Escherichia* or *Klebsiella*.
103. (Cancelled)
104. (Amended) The recombinant host cell of claim 97 or 98, wherein said first endoglucanase is EGZ and said second endoglucanase is EGY.
105. (Amended) An enzyme extract derived from the host cell of claim 97 or 98.
- 106-110. (Cancelled).
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